

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A coplanar line comprising:

a first rectangular slab of a horizontally stacked multi-layered stack of rectangular slabs of dielectric material, said first rectangular slab ~~having comprising~~ a first side, a second side and two edges, said first rectangular slab having a first dielectric constant;

a second rectangular slab of said horizontally stacked multi-layered stack of rectangular slabs of dielectric material, ~~wherein said second rectangular slab is stacked adjacent to said first rectangular slab along a horizontal direction;~~

said second rectangular slab having a second dielectric constant less than 30, the second ~~and a dielectric constant that is less than the first dielectric constant of said first rectangular slab of dielectric material;~~

a first electrode adjacent to said first side of said first rectangular slab of dielectric material and a second electrode adjacent to said second side of said first rectangular slab of dielectric material, said first electrode and said second electrode for applying a controllable voltage across said first rectangular slab of dielectric material thereby controlling a dielectric constant of said first rectangular slab of dielectric material;

a center strip positioned with a side of said center strip adjacent perpendicular to a said ~~first edge side~~ of each of said first and second rectangular slabs of dielectric material; and

a first and a second ground plane, wherein said center strip is positioned between said first ground plane and said second ground plane ~~planes positioned on opposite ends of said centerstrip.~~

2. (Previously presented) A coplanar line as recited in claim 1, further comprising:

means for applying a controllable voltage across said second rectangular slab of dielectric material, thereby controlling the dielectric constant of said second rectangular slab of dielectric material.

3. (Currently Amended) A coplanar line as recited in claim 1, further comprising:
a plurality of additional rectangular slabs of dielectric material ~~within said horizontally~~
~~stacked multi-layered stack of~~ with said first and second rectangular slabs, said additional
rectangular slabs of dielectric material include at least one layer having a tunable dielectric
constant.

4. (Previously presented) A coplanar line as recited in claim 3, wherein said first,
second and additional layers of dielectric material are assembled into a plurality of subassemblies,
said subassemblies having the same arrangement of dielectric materials.

5. (Previously presented) A coplanar line as recited in claim 1, wherein said first
rectangular slab of dielectric material has dielectric constant greater than about 100 and a loss
tangent of less than about 0.01.

6. (Previously presented) A coplanar line as recited in claim 1, wherein said second
rectangular slab of dielectric material is selected from the group consisting of $\text{Ba}_{1-x}\text{Sr}_x\text{TiO}_3$
composite where x ranges from zero to one, alumina, mica, and air.

7. (Previously presented) A coplanar line as recited in claim 1, wherein said first and
second rectangular slabs of dielectric material is selected from the group consisting of bulk, tape,
thick film and thin film layers.

8. (Previously presented) A coplanar line as recited in claim 1, wherein said first and
second rectangular slabs of dielectric material each have a thickness less than about one tenth of
the wavelength of a radio frequency signal to be transmitted through the coplanar line.

9. (Previously presented) A coplanar line as recited in claim 1, wherein said first rectangular slab of dielectric material is selected from the group consisting of BSTO, BSTO-MgO, BSTO-MgAl₂O₄, BSTO-CaTiO₃, BSTO-MgTiO₃ and BSTO-MgSrZrTiO₆.